

➤ Preliminary Amendment
U.S. Application No. 10/618,690

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) An image input unit comprising:

a data generator which generates RGB image data representing each value of RGB for each pixel as signed data type from an input image; and

a data converter which converts the RGB image data into YCbCr image data representing each value of YCbCr for each pixel,

wherein the data generator generates CMY or CMYG image data representing each value of CMY or CMYG for each pixel as unsigned data type from the input image, and converts the CMY or CMYG image data into the RGB image data, and

wherein the data generator includes a signed arithmetic circuit for converting the CMY or CMYG image data into the RGB image data.

Claims 2 and 3 (canceled)

4. (currently amended) The image input unit according to claim 2, An image input unit comprising:

a data generator which generates RGB image data representing each value of RGB for each pixel as signed data type from an input image; and

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a data converter which converts the RGB image data into YCbCr image data representing each value of YCbCr for each pixel,

wherein the data generator generates CMY or CMYG image data representing each value of CMY or CMYG for each pixel as unsigned data type from the input image, and converts the CMY or CMYG image data into the RGB image data, and

wherein the data generator generates CMY or CMYG image data representing each value of CMY or CMYG for each pixel as unsigned data type of 10 bits or more from the input image.

5. (original) The image input unit according to claim 1, wherein

the RGB image data representing each value of RGB for each pixel generated by the data generator is signed data type of nine bits or more, and

the RGB image data into YCbCr image data representing each value of YCbCr for each pixel converted by the data converter is unsigned data type of eight bits.

6. (original) The image input unit according to claim 1, wherein the data converter enlarges color saturation represented by CbCr.

7. (currently amended) An image input method comprising:

a data generation step of generating RGB image data representing each value of RGB for each pixel as signed data type from an input image; and

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a data conversion step of converting the RGB image data into YCbCr image data representing each value of YCbCr for each pixel,
wherein at the data generation step, CMY or CMYG image data representing each value of CMY or CMYG for each pixel as unsigned data type is generated from the input image, and the CMY or CMYG image data is converted into the RGB image data, and
wherein at the data generation step, CMY or CMYG image data representing each value of CMY or CMYG for each pixel as unsigned data type of 10 bits or more is generated from the input image.

Claims 8 and 9 (canceled)

10. (original) The image input method according to claim 7, wherein
RGB image data representing each value of RGB for each pixel generated at the data generation step is signed data type of nine bits or more is generated; and
YCbCr image data representing each value of YCbCr for each pixel converted from the RGB image data at the data conversion step is unsigned data type of eight bits.

11. (original) The image input method according to claim 7, wherein at the data conversion step, color saturation represented by CbCr is enlarged.